

【What is claimed is】

1. A new carbonated candy-type vitamin preparation comprising at least one active ingredient selected from the group consisting fat-soluble vitamins and water soluble vitamins, trace inorganic compounds, amino acids, organic acids, and other ingredients necessary for human being; sucrose and; starch syrup(maltose syrup), sodium bicarbonate; and carbon dioxide with the proviso that at least one vitamin is comprised, characterized in that the carbonated candy-type vitamin preparation is manufactured by

1) Active ingredients, sucrose, starch syrup(maltose syrup) and other ingredients, except carbon dioxide and sodium bicarbonate are dissolved, suspended or emulsified in suitable amount of water and the mixture is heated rapidly to obtain a molten mass;

2) The molten mass is concentrated to about 1-3 weight parts of water;

3. The concentrated molten mass is transferred to a pre-heated autoclave where color, essence and sodium bicarbonate are added by rapid stirring and is injected with carbon dioxide gas by rapid stirring to disperse the carbon dioxide bubbles under high pressure;

4) The molten carbon-dioxide-gasified mass is injected into a suitable size of tube or candy-type mold;

5) The tube or mold injected with molten carbon-dioxide-gasified mass is cooled to or below 15°C;

6) The cooled carbonated candy-type mass is taken out and/or crushed under or below 20 °C, under or below 40% of RH;

7) In the case of crushed carbonated mass, the crushed carbonated mass is sieved through a standard sieve; and

8) The carbonated candy-type mass or sieved crushed carbonated mass is sealed and packaged in a hermetic package.

2. A new carbonated candy-type vitamin preparation of claim 1 wherein least one active ingredient is selected from the group consisting fat-soluble vitamins and water soluble

vitamins, trace element, trace ingredients is selected from the group consisting vitamin A<sub>1</sub>(retinol), vitamin A<sub>2</sub>(3-dehydroretinol), vitamin A<sub>3</sub>, vitamin D<sub>2</sub>(ergocalciferol), vitamin D<sub>3</sub>(cholecalciferol), provitamin D<sub>2</sub>(ergosterin), provitamin D<sub>3</sub>(dehydrocholesterol), vitamin E(α-tocopherol, β-tocopherol, γ-tocopherol, δ-tocopherol), vitamin F(linoleic acid, linolenic acid), vitamin K<sub>1</sub>, vitamin K<sub>2</sub>, vitamin U, vitamin B<sub>1</sub>(thiamine), vitamin B<sub>2</sub>(riboflavin),  
5 vitamin B<sub>6</sub>(pyridoxin), nicotinamide, nicotinic acid, pantothenic acid, vitamin H(biotin), folic acid, vitamin B<sub>12</sub>(cyanocobalamin), choline, inositol, vitamin L<sub>1</sub>(anthranilic acid), vitamin L<sub>2</sub>(5'-thiomethyladenosine), vitamin B<sub>13</sub>(orotic acid), vitamin C(ascorbic acid), glycine, alanine, valine, leucine, isoleucine, serine, threonine, cysteine, methionine,  
10 asparaginic acid, glutaminic acid, lysine, arginine, phenylalanine, tyrosine, histidine, tryptophane, proline, oxyproline, lactose, fructose, glucose, KI, MgO, Cu<sub>2</sub>O, ZnSO<sub>4</sub>, MnSO<sub>4</sub>, CaHPO<sub>4</sub>, KCl, dried yeast(yeast containing Cr, yeast containing Se, yeast containing Mo), precipitated calcium carbonate, pomegranate extract, collagen, chitosan, green tea extract, Ginseng Radix extract, Acanthopanax Cortex extract, onion extract, malic acid, citric acid,  
15 tartaric acid, fumaric acid, maleic acid and acetic acid.

3. A process for the preparation of a new carbonated candy-type vitamin preparation comprising at least one active ingredient selected from the group consisting fat-soluble vitamins and water soluble vitamins, trace inorganic compound, trace ingredients; sucrose  
20 and; starch syrup(maltose syrup), sodium bicarbonate; and carbon dioxide, with the proviso that at least one vitamin is comprised, characterized in that the carbonated candy-type vitamin preparation is manufactured by

1) Active ingredients, sucrose, starch syrup(maltose syrup) and other ingredients, except carbon dioxide and sodium bicarbonate are dissolved, suspended or emulsified in  
25 suitable amount of water and the mixture is heated rapidly to obtain a molten mass;

2) The molten mass is concentrated to about 1-3 weight parts of water;

3) The concentrated molten mass is transferred to a pre-heated autoclave where the molten mass is added sodium hydrogen carbonate by rapid stirring and is injected with carbon dioxide gas by rapid stirring to disperse the carbon dioxide gas bubbles under high pressure;

5        4) The molten carbon-dioxide-gasified mass is injected into a suitable size of tube or candy-type mold;

5) The tube or mold injected with molten carbon-dioxide-gasified mass is cooled to or below 15°C;

10       6) The cooled carbonated candy-type mass is taken out and/or crushed under or below 20°C, under or below 40% of RH;

7) In the case of crushed carbonated mass, the crushed carbonated mass is sieved through a standard sieve; and

8) The carbonated candy-type mass or sieved crushed carbonated mass is sealed and packaged in a hermetic package.

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4. A process for the preparation of a new carbonated candy-type vitamin preparation of claim 1 wherein least one active ingredient is selected from the group consisting fat-soluble vitamins and water soluble vitamins, trace element, trace ingredients is selected from the group consisting vitamin A<sub>1</sub>(retinol), vitamin A<sub>2</sub>(3-dehydroretinol), vitamin A<sub>3</sub>, vitamin D<sub>2</sub>(ergocalciferol), vitamin D<sub>3</sub>(cholecalciferol), provitamin D<sub>2</sub>(ergosterin), provitamin D<sub>3</sub>(dehydrocholesterol), vitamin E(α-tocopherol, β-tocopherol, γ-tocopherol, δ-tocopherol), vitamin F(linoleic acid, linolenic acid), vitamin K<sub>1</sub>, vitamin K<sub>2</sub>, vitamin U, vitamin B<sub>1</sub>(thiamine), vitamin B<sub>2</sub>(riboflavin), vitamin B<sub>6</sub>(pyridoxin), nicotinamide, nicotinic acid, pantothenic acid, vitamin H(biotin), folic acid, vitamin B<sub>12</sub>(cyanocobalamin), choline, inositol, vitamin L<sub>1</sub>(anthranilic acid), vitamin L<sub>2</sub>(5'-thiomethyladenosine), vitamin B<sub>13</sub>(orotic acid), vitamin C(ascorbic acid), glycine, alanine, valine, leucine, isoleucine, serine, threonine, cysteine, methionine, asparaginic acid, glutaminic acid, lysine, arginine, phenylalanine,

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tyrosine, histidine, typtophane, proline, oxyproline, lactose, fructose, glucose, KI, MgO, Cu<sub>2</sub>O, ZnSO<sub>4</sub>, MnSO<sub>4</sub>, CaHPO<sub>4</sub>, KCl, dried yeast(yeast containing Cr, yeast containing Se, yeast containing Mo), precipitated calcium carbonate, pomegranate extract, collagen, chitosan, green tea extract, Ginseng Radix extract, Acanthopanacis Cortex extract, onion  
5 extract, malic acid, citric acid, tartaric acid, fumaric acid, maleic acid and acetic acid.

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